



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/581,584

06/11/2007

Ulrich Bantle

VO-768

7001

42419 7590 12/10/2008  
PAULEY PETERSEN & ERICKSON  
2800 WEST HIGGINS ROAD  
SUITE 365  
HOFFMAN ESTATES, IL 60195

EXAMINER

SULLIVAN, MATTHEW J

ART UNIT

PAPER NUMBER

3677

MAIL DATE

DELIVERY MODE

12/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/581,584

Applicant(s)

BANTLE ET AL.

Examiner

MATTHEW SULLIVAN

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 10/21/08 have been fully considered but they are not persuasive. Applicant has argued, both in Remarks/Arguments and in a telephone interview dated 12/4/08, that the one-way sealing lip taught in fig. 6 does not function in a manner making its structure obvious over the Applicant's invention. Applicant has specifically claimed that the cavity and lip combination of his invention presents a "parachute" effect in its functionality. Examiner believes that the lip seal taught by Bowden '103 must be considered to inherently have some parachute effect when it is flared outward, specifically, Examiner quotes Bowden '103, "...the flared end 74 of the lip seal member...is deformed under pressure so as to cause the flared end to spread or expand radially outwardly against the inner sidewall 40 of the body member, thereby creating a seal." Examiner asserts that this functionally describes a parachute effect, or at the very least, suggests some inherent parachute effect while the structure is operating.

Under further search and consideration Examiner has found the previously cited Allowable Subject Matter, claims 18-23 obvious in view of Kropf, U.S. Patent Application Publication 2005/0015927 (1/27/05).

Accordingly, this action is made non-final.

***Claim Rejections - 35 USC § 103***

**Claims 1-15 and 24-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice, U.S. Patent 6,553,617 (4/29/03) in view of Bowden, et al, U.S. Patent 4,948,103 (9/14/90) and Ramsey, U.S. Patent 4,216,694 (9/12/80).**

Salice '617 clearly teaches a door-closing damper (fig. 1) having a stop element (6) guided in an elongated damper body (1) with an open end and a closed end (see below), a receiving chamber (see below) for receiving a sliding element (2-5, collectively) which is connected to the stop element, and the sliding element has at least one sliding face which rests against an interior wall section of the receiving chamber assigned to the open end of the damper body (see below). Salice '617 does not teach a sealing device (having at least one elastic lip pushed against the inner contour forming a largely air-tight seal) resting against the inner contour and arranged on an end of the sliding element projecting into the receiving chamber to form a hollow space which when the sliding element is charged with a pressure, a counter-pressure is exerted on the sliding element from an air pressure built up in the hollow, the hollow space having at least one opening for an escape of the air, or a damping member to form a flow resistance to the air escaping through the opening. Bowden '103 does teach a sealing device (fig. 6) having at least one elastic sealing lip (18) arranged on an end of a sliding element (14) projecting into the receiving chamber (36) where the end of the sliding element projecting into the receiving chamber and the sealing device form a hollow space with the inner contour and when the sliding element is charged with a pressure, a counter-pressure is exerted on the sliding element and the hollow space has at least one opening (34) for the escape of air. Bowden '103 does not teach a damping

Art Unit: 3677

member working together with the opening or the elastic sealing lip being pushed against the inner contour of the receiving chamber when air pressure is built up in the hollow space. However, it would have been obvious to one of ordinary skill in the art to reverse the direction of the sealing lip so that it would be pushed against the contour when there is a counter-pressure that exists in the hollow space because such a mechanism would enhance the dampening characteristics of the device and a reversal of parts is generally held to be within the ordinary skill of one in the art, *In re Gazda*. Ramsey '694 does teach a porous damping member (17) to resist air flow. It would've been obvious to one of ordinary skill in the art at the time of the invention was made to add an air resistive damping member because such a member would allow the inventor to change the flow characteristics as appropriate by using different materials. At the time of the invention it would have been obvious to one of ordinary skill in the art to provide Salice '617 with the features as taught by Bowden '103 and Ramsey '694 because the vent hole opening and the damper member would provide the inventor with design characteristics that are easily modified for various applications; **[Claim 1]**.

Regarding **Claim 2, 3 and 27**, Ramsey '694 discloses a porous member made of felt for restricting air flow (Col 4, lines 15-28, reference 87) out of the damper.

Regarding **Claim 4 and 28**, Bowden '103 clearly teaches the vent hole (34) being arranged at the closed end (30) of the damper body (12).

Regarding **Claims 5 and 7**, Ramsey '694 clearly teaches the damping members (87) formed on the damper body (fig. 3) and the entire air flow passes through the

Art Unit: 3677

valves and damping members. The claim limitation “support area” is interpreted to be any area outside the damper itself.

Regarding **Claims 6, 8, 9, 10, and 29-32**, the rearrangement of parts, barring any unforeseen result, is generally considered obvious to one of ordinary skill in the art, *In re Japikse*.

Regarding **Claims 11 and 33**, Salice '617 clearly teaches a spring (12) arranged in the receiving chamber (see below) and pushes the sliding element (2-5, collectively) at least partially out of the receiving chamber and has a spring force against which the sliding element can be pushed into the receiving chamber.

Regarding **Claims 12 and 34**, Bowden '103 clearly teaches an elastic sealing lip (18) partially spaced from the outer contour (Col 5, Lines 39-52) arranged at the end of a sliding element and extending into the receiving chamber. Bowden '103 does not teach the sealing lip substantially inclined toward the closed end of the receiving chamber, but does teach a sealing lip substantially inclined toward the open end of the receiving chamber (see figs. 2 and 6). However, the reversal of parts, barring any unforeseen result, it is generally considered obvious to one of ordinary skill in the art, *In re Gazda*.

Regarding **Claims 13 and 35**, Bowden '103 does not teach a door-closing damper wherein an underpressure created in the hollow space spaces the elastic sealing lip of the sealing device in the space between the inner contour of the receiving chamber and the outer contour of the sliding element apart from the inner contour of the receiving chamber during an at least partial pull-out of the sliding element from the

Art Unit: 3677

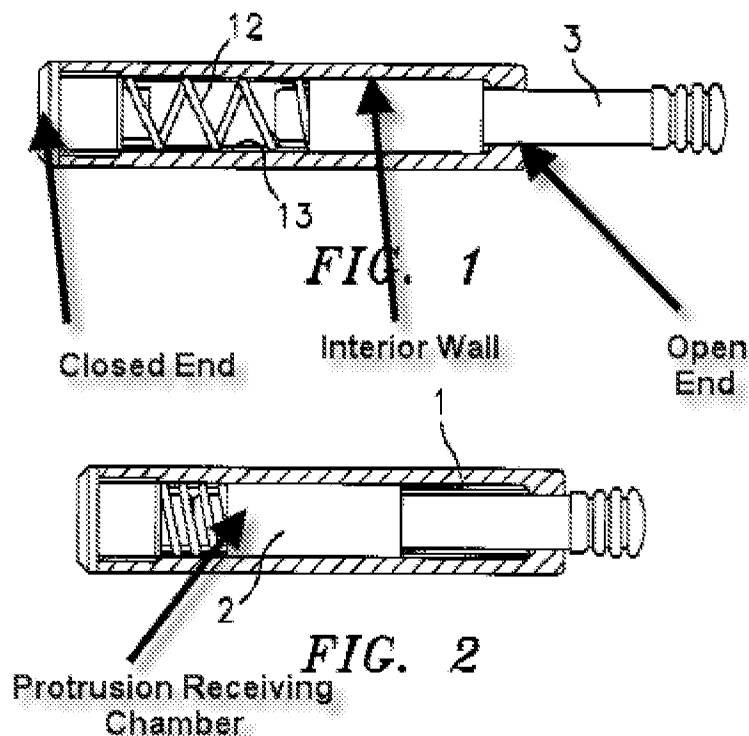
receiving chamber so that air can flow through the space between the inner contour of the receiving chamber and the outer contour of the sliding element beyond the sealing lip into the hollow space. However, Bowden '103 does teach a door-closing damper wherein an overpressure created in the hollow space spaces the elastic sealing lip (18) of the sealing device (fig. 6) in the space between the inner contour of the receiving chamber and the outer contour of the sliding element apart from the inner contour of the receiving chamber during an at least partial push-in of the sliding element from the receiving chamber so that air can flow through the space between the inner contour of the receiving chamber and the outer contour of the sliding element beyond the sealing element out of the hollow space (Col 5, Lines 39-52). The reversal of parts, barring any unforeseen result, it is generally considered obvious to one of ordinary skill in the art, *In re Gazda*.

Regarding **Claim 14** and **36**, Salice '617 clearly teaches a door-closing damper where at least one protrusion (see below) is formed on the interior wall section (8) of the receiving chamber (see below) associated with the open end of the damper body which contacts at least one sliding face (see below) of the sliding element (3).

Regarding **Claim 15**, Salice '617 further teaches a door-closing damper with at least one protrusion (2) is formed on the sliding element (2-5, collectively) which during the at least partial pull-out of the sliding element out of the receiving chamber strikes the protrusion (see below) formed on the interior wall section of the receiving chamber associated with the open end of the damper body (1).

Art Unit: 3677

Regarding **Claims 24-26**, all the aspects of the instant invention are disclosed above but for the opening having a diameter (D) of less than 0.2 mm, the opening having a diameter of less than 0.1 mm, and the ratio between the cross-sections of the piston and the opening having a ratio of greater than 4000/1. It would have been an obvious matter of design choice to modify the combination of Salice '617, Bowden '103 and Ramsey '694 with the dimensions listed above because the applicant has not disclosed that having these specific dimensions provides any unexpected result and it appears other dimensions would perform equally well.



**Claims 16 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice '617, Bowden '103, Ramsey '694 as applied to claims 1-15 and 27-36 above, and further in view of Salice, German Patent DE 20309874, (6/26/03).**

Regarding **Claims 16 and 37**, Salice '617 clearly teaches a door-closing damper that is insertable into a blind bore (see fig. 7) in a receiver body (14). Salice '617 does not teach the damper body having a shoulder at least partially encircling an outer contour associated with the open end. Salice '874 does teach a damper body (4) with a shoulder (see fig. 3) at least partially encircling an outer contour associated with an open end. At the time of the invention it would have been obvious to one of ordinary skill in the art to provide the characteristics taught by they combination of Salice '617, Bowden '103 and Ramsey '694 in combination with the features as taught by Salice '874 because the shoulder would prevent the damper from being pushed too deeply into the bore to be effective.

**Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice '617, Bowden '103, Ramsey '694 and Salice '874 as applied to claims 1-16 and 27-37 above, and further in view of Kropf, U.S. Patent Application Publication 2005/0015927 (1/27/05).**

All the aspects of the instant invention are disclosed above but for the sliding body having an elongated recess which at least partially extends substantially in a direction of a longitudinal extension is arranged at the closed end of a receiving chamber into which a spring arranged in the receiving chamber extends, a pin extending in the longitudinal direction of the receiving chamber formed on the inner contour of the closed end and which in a closed state extends substantially completely into a recess which runs the longitudinal extension, the spring being arranged in the receiving chamber and conducted over the pin on an outer contour of the pin, and wherein with the sliding element substantially completely pushed-in the spring is compressed in the space between the pin and the recess. Kropf clearly teaches a sliding body (18) having an elongated recess (24) extending in a longitudinal direction, arranged at the closed end of the receiving chamber and into which the spring extends (see fig. 9); **[Claim 17]**. Kropf further teaches a pin (13) formed on the inner contour closed end and extending substantially completely into the recess in a completely pushed in state (see fig. 2); **[Claim 18]**. Kropf further teaches a spring (12) arranged around the outer contour of the pin and movably arranged in the space between the pin and the recess; **[Claim 19]**. Kropf further teaches the spring compressed in the space between the pin and the recess in the substantially pushed state (see fig. 2); **[Claim 20]**. At the time of the invention it would have been obvious to one of ordinary skill in the art to provide the combination of Salice '617, Bowden '103, Ramsey '694 and Salice '874 with the features as taught by Kropf because the pin-recess structure of Kropf

would drastically reduce the likelihood of the spring deforming out of axial position and rendering the damper useless.

Regarding **Claim 21**, Salice '617 teaches a detend head projecting at least partially over an edge area of an opening and which stops at the edge area when substantially completely pushed in (see fig. 2).

Regarding **Claim 22**, Bowden '103 clearly teaches the sliding element integrated with the sealing device (see fig. 6, references 14, 74, 77).

Regarding **Claim 23**, Salice '617 further teaches the door closing damper wherein the stop element (6) has a releasable connection with a connecting element (see figs. 7 and 8).

**Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salice '617, Bowden '103 and Ramsey '694 as applied to claims 1-16 and 27-37 above, and further in view of Li, Taiwanese Patent 92113592 (5/20/03).**

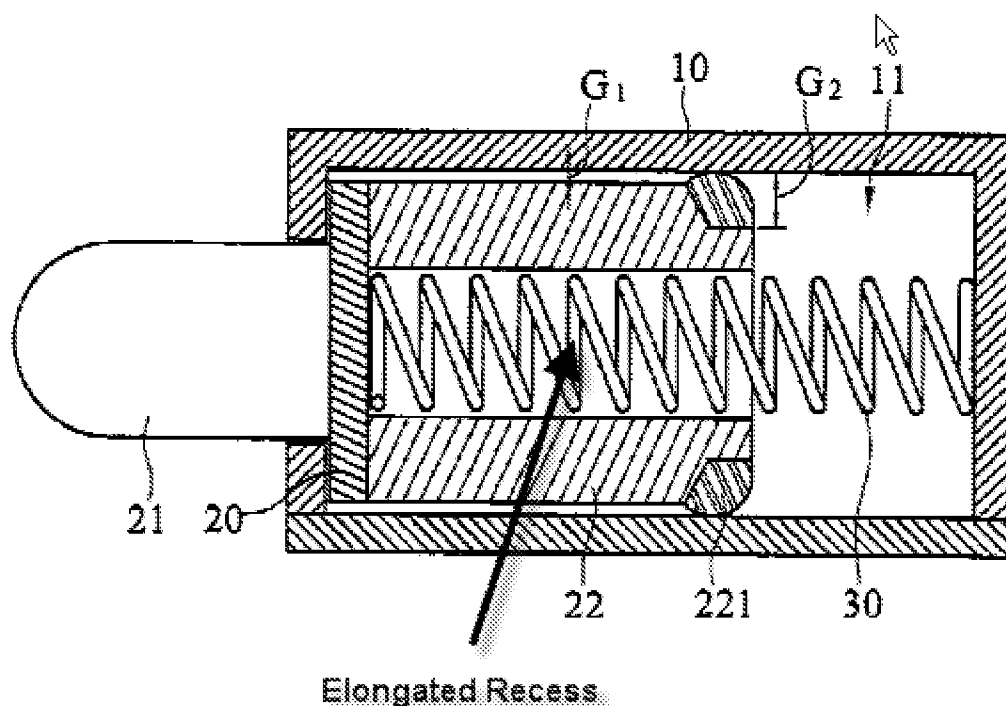
All the aspects of the instant invention are disclosed above but for the sliding body having an elongated recess which at least partially extends substantially in a direction of a longitudinal extension is arranged at the closed end of a receiving chamber into which a spring arranged in the receiving chamber extends. Li '592 clearly teaches a damper (fig. 2) where the sliding body (20-22, collectively) has an elongated recess (see below) which at least partially extends substantially in a direction of a longitudinal extension and is arranged at a closed end (see below) of a receiving

Art Unit: 3677

chamber into which a spring (30) extends; [**Claim 38**]. At the time of the invention it would have been obvious to one of ordinary skill in the art to provide the combination of Salice '617, Bowden '103, Ramsey '694 and Salice '874 with the features as taught by Li because the pin-recess structure of Li would drastically reduce the likelihood of the spring deforming out of axial position and rendering the damper useless.

Regarding **Claim 39**, Salice '617 clearly teaches a stop element (6) with a detent head (see below) which projects at least partially over an edge area (see fig. 2) of an opening (7) at the open end of the damper body which with the sliding element pushed-in is stopped on the edge area.

Regarding **Claim 40**, Bowden '103 clearly teaches a sliding element integrated with a sealing device (18), (see fig. 2 and 6).



***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW SULLIVAN whose telephone number is (571)270-5218. The examiner can normally be reached on Mon-Thurs, 8:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor D. Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor Batson/  
Supervisory Patent Examiner, Art Unit 3677

/MATTHEW SULLIVAN/  
Examiner, Art Unit 3677